

Digital Revolution.. or Evolution

- Everyone wants universities to change,
but exactly how is not so clear
- The relentless advance of online learning
 - Neither hype nor negativity can stop it.

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University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Worcester • UMassOnline

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- Jack, you used to be my favorite radical!
 - Carol Geary Schneider (at the end of a recent call)

 - ▣ Now THAT begs a new series of questions!

The Paradox

- At the same time that Universities are facing extraordinary financial pressures due to a collapse of state revenue and endowments
- Everyone is looking to Universities to lead us out of the economic decline
- Creating futures for students and communities
- And solving social challenges like
 - improving college readiness
 - Reducing disparities (racial, economic, gender, etc)
 - Increasing graduation rates
 - Attracting students into STEM fields
 - Better matching workforce needs

President Obama's Goal

- To be first the world by 2020 in the proportion of college graduates.
 - ▣ -Address to Congress on Feb. 24, 2009.
- The US was tied for 6th place at 30% according to 2006 data.



The Catalyst for the Future

- What do Boston, Bombay, Beijing, Bangalore have in common with
- San Francisco, Austin, Raleigh, Cambridge, and other world economic leaders?
- They are vibrant economic regions nucleated by world class universities.

The Secret Sauce?



- Universities pouring out highly educated graduates with skills and intellectual property.
- World class research that is curing illnesses and creating new jobs, companies, and even entirely new industries.
- And doing this at very large scale.

The Path

- I love to say:
- “The path to economic and social development in Massachusetts goes through the University.”
- It is fair to say that the path to economic and social development in the world goes through our world class universities, and through the continuum of world class education from K-Retirement.

Not everyone believes!

- Higher Education Costs too much?
 - This widely held political position is most notable for the lack of understanding of why this might be –if indeed it really is!
 - Nonetheless- we should buckle our seatbelts for a ride to drive down the cost of higher education -and many of the “well meaning” efforts will be far more damaging than helpful.
 - Some will be downright foolish like government attempts in Florida and Texas to mandate \$10,000 bachelor’s degrees –based upon political rather than academic considerations.

But far too many are in denial

- While change has actually been rather large scale, the conventional wisdom is that there has been little change.
- It is also probably accurate to say that even the large scale changes have not penetrated the culture of higher education nearly as much as necessary.
- There is no shortage of contrarian voices that decry even those changes that HAVE occurred.
- The disparity is creating a vacuum into which politics is inevitably drawn.

The dangers of hype

- Students get hurt by well meant, but poorly designed experiments.
- Money gets wasted at a time when every dollar is precious in higher education
- Good ideas get discredited by over-reaching and then failing.
- To anyone in the audience that I offend, I offer this prior apology but.....
- I hope that it encourages you to adopt a position of scientific skepticism and innovative optimism.

The 3 C's - the forces on education -*

- **Computers**
- **Communication**
- **Cognition**
- Many of the innovations that catch the eye of the public do a good job on the first two and a lousy job on the third.
- We know much more about how students learn, and learning environments need to change to create the engagement that leads to student learning.
- That is indeed happening at many places
The NCAT, NRC Report, White House Conferences

* "Using the Computer in Teaching Physics," J.M. Wilson, *Physics Today* 42(1) (January 1989).

Cognition

- My involvement with the recent NRC report reminded (and saddened) me to note that educational innovation often reinvents the wheel rather than advancing our understanding –based upon the research on the way students learn.
- There are notable exceptions like:
 - ▣ The National Center for Academic Transformation
 - ▣ The Rensselaer Studio Courses
 - ▣ Carnegie Mellon Open Learning Initiative (OLI).
 - ▣ Many others but not enough.

Massive Open Online Courses MOOCs

- Kahn Academy -2006
 - ▣ Salman Kahn –non-profit -2006
- Udacity -2012
 - ▣ Sebastian Thrun, Stanford - for-profit
- Coursera -2012
 - ▣ For-Profit – Andrew Ng, Daphne Koller, Stanford
- edX (MITx -2011 and edX in 2012)
 - ▣ Harvard, MIT, Berkeley –non-profit
- Udemy -2010
 - ▣ Eren Bali and Gagan Biyani –for profit

Are MOOCs going to change the world

- Too late. The world already changed without MOOCs even if Stanford, Harvard, MIT and others had not noticed!
 - ▣ “the vast majority of people who sign up for MOOC’s don’t complete their courses, yet MOOC creators are hailed as visionaries rather than being denounced for their 10-percent completion rates” –Kevin Carey – Chronicle Blog
 - ▣ In 50 years there will be only 10 institutions in the world delivering higher education and Udacity has a shot of being one of them. Sebastian Thrun- Udacity Founder
- MOOCs are interesting and valuable experiments, but they are not on the critical path of online education –at least in their current form.

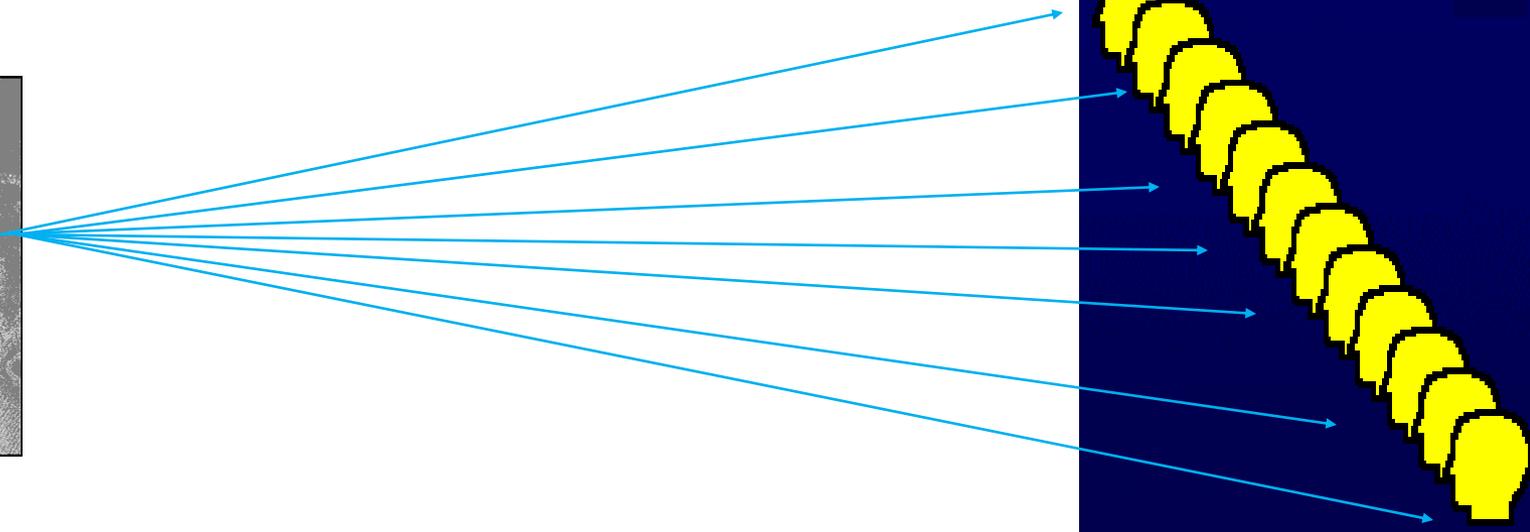
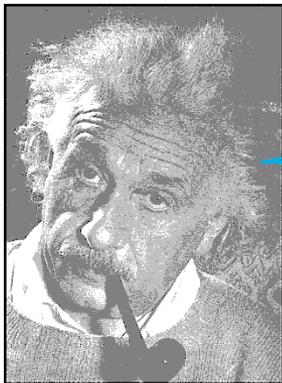
A Brief History of “Distance Learning”

- Correspondence Courses
- TV Courses – Cable, Satellite, Videotape
- Interactive Video Courses (2-way satellite, videoconferencing, and now Skype)
- ALN – “traditional” online education
- MIT OpenCourseWare
- Carnegie Mellon Open Learning Initiative
- MOOCs

- Unfortunately many of the MOOCs look eerily like the “moving hand writes and then moves on” of the video days!

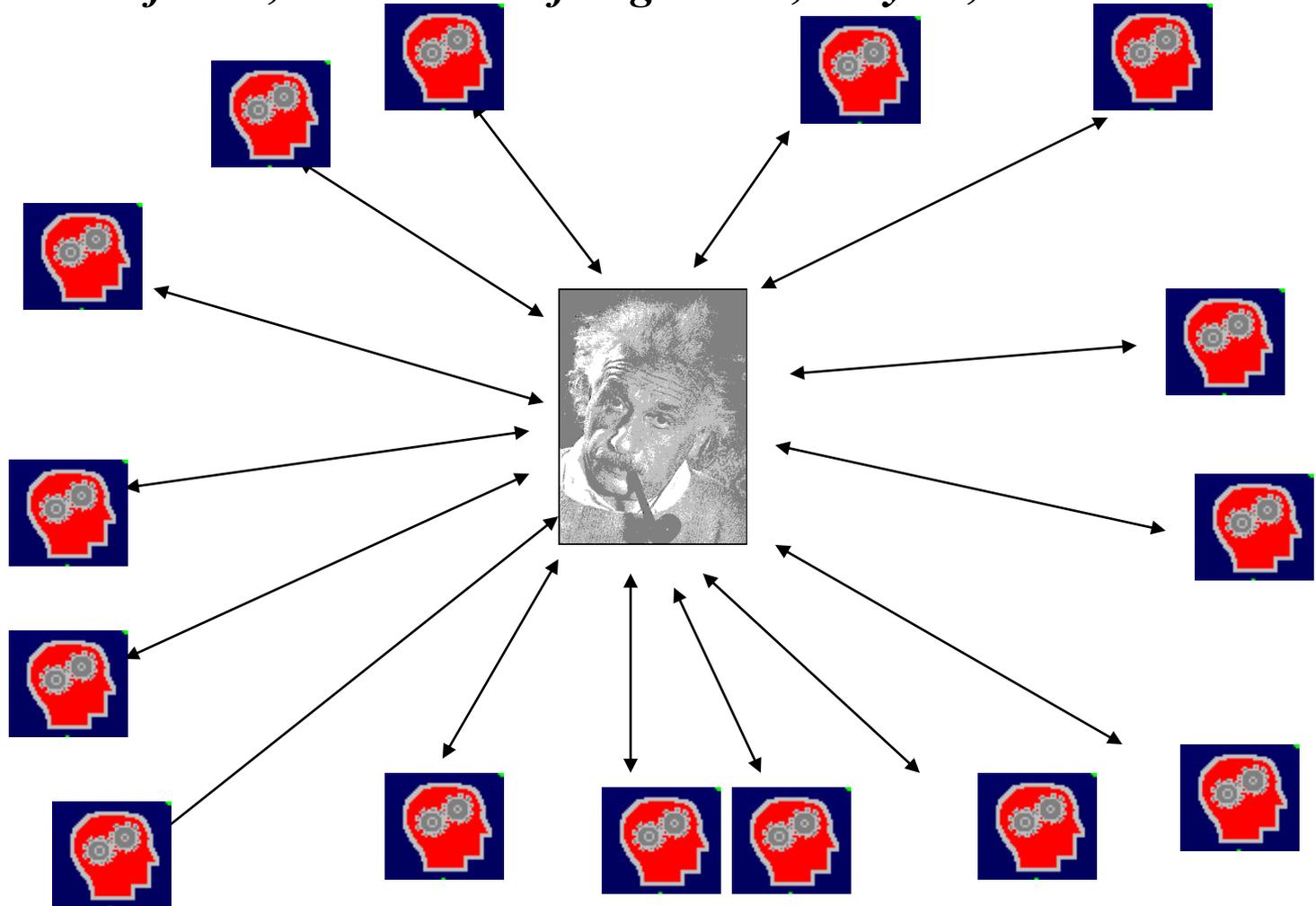
The transmission (lecture) model

- The mainframe approach
 - ▣ Face to Face: The Lecture
 - ▣ Distance: TV (Cable, Video, Satellite, or MOOC)
 - Pushes the back wall out a few thousand miles



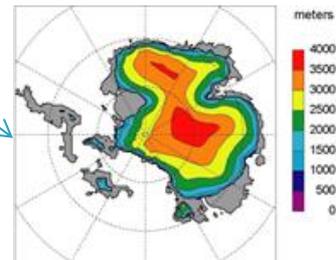
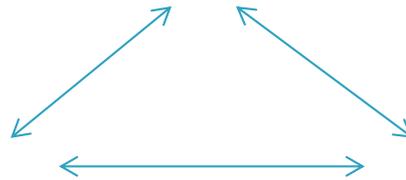
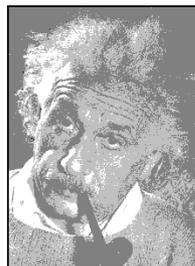
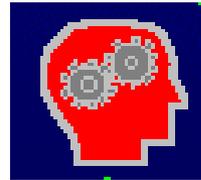
Which can become the usual on-line course organization

“The 24-Hour Professor;” Chronicle of Higher Ed; May 31, 2002



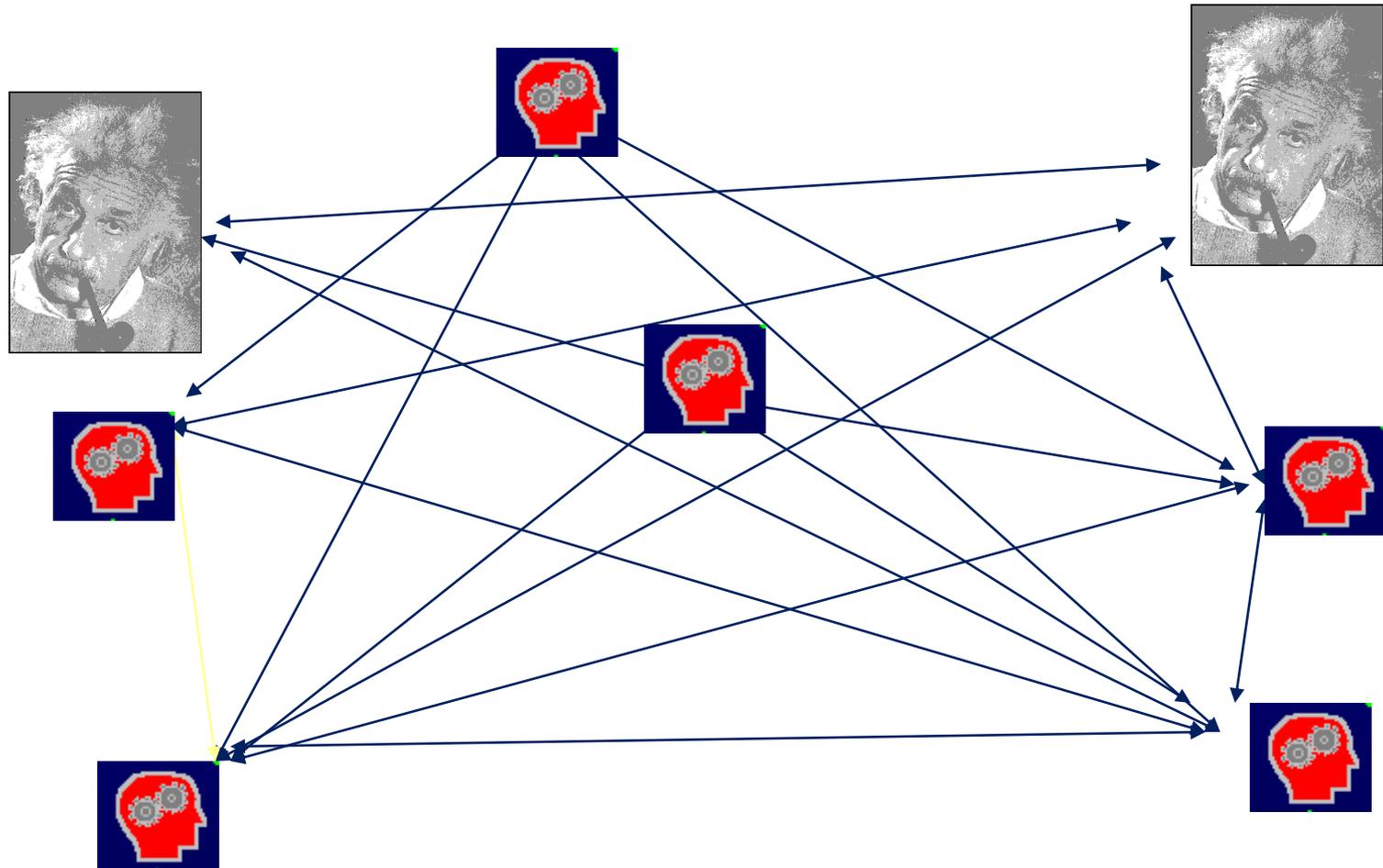
Engagement

- Faculty with student (half done in lecture)
- Student with material (reading, homework, papers, adaptive tutorials, most MOOCs, etc)
- Student with Student (peer learning, small groups, team based projects, studio classrooms, etc)

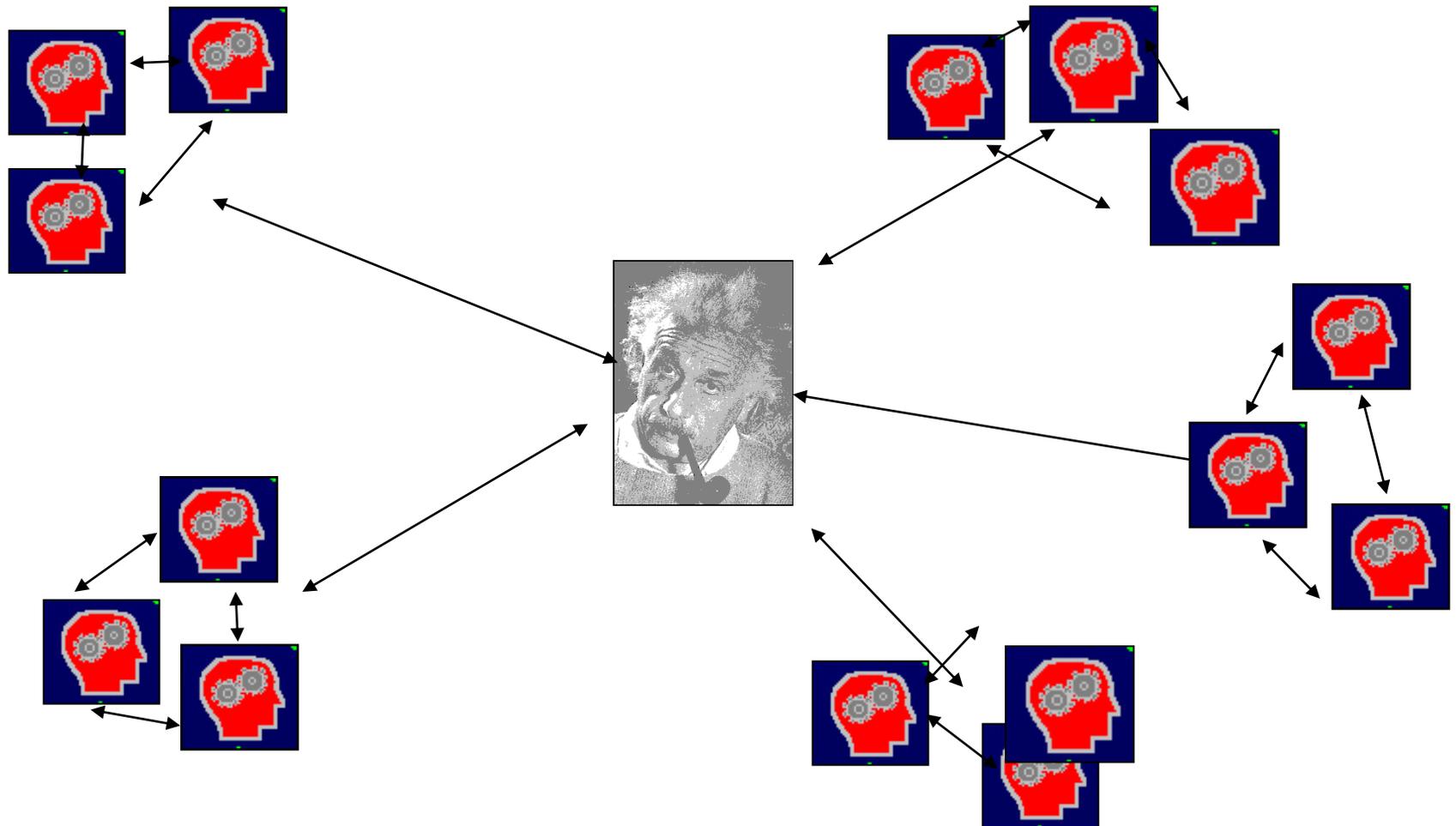


Climate change models, R. Decanto
UMass/Amherst

Distributed Collaborative On-line Model



Collaborative Learning, Peer Learning.....



High (Hype) hopes for eLearning (History circa 2000)

- **Columbia formed Fathom & teamed with XanEdu.**
- **U. of Penn Wharton School teamed with Caliber, a spin-off from Sylvan Learning.**
- **Cornell spun off eCornell with \$12 million internal investment**
- **UNext created Cardean University with Columbia, London School of Economics, Carnegie Mellon, Stanford, and Chicago.**
 - **Reportedly Cardean had pledged to pay Columbia, and perhaps the others, \$20 million dollars if they failed within five years.**
- **Temple formed “Virtual Temple”**
- **Pensare teamed up with Duke.**
- **Click2Learn teamed with NYU Online.**
- **North Carolina, Harvard, and USC went to University Access for help in getting online.**
- **Harcourt Higher Education was launched as a college in 2000 and confidently predicted “50,000 to 100,000 enrollments within five years.”**

And Now? (Slide made Nov. 2003!)

- Pensare is gone.
- Fathom is gone -needed ~\$30 million from Columbia
 - Faculty became restive, closed in early 2003
- Cardean laid off half work force –"restructures".
- Temple University closes virtual Temple.
- NYU folded NYUOnline back into the campus.
- Harcourt gone after enrolling 32 students in 2001.
- eCornell open BUT with reduced expectations.
- Britain's Open U. closes US branch -\$20 M later.
- Caliber goes bankrupt- acquired by iLearning(Sylvan).
- University Access -> Quisic withdraws from H.Ed.

Lessons Learned

- For-profit model - not proven viable for universities (NYUOnline, UMUC, etc.).
- Joint ventures between universities and for-profits are hard to make viable (Pensare, Caliber, NYUOnline, U21 Global, etc)
- It is difficult to borrow brand equity from one institution to another: (Cardean, Pensare)
- Brand equity does not transfer easily from a different business to eLearning (Harcourt)
- To succeed in business one must have product to sell (Fathom, etc.)
- Content is a commodity,
 - over investment in content is often fatal.
- Brand and prestige are not the same.

Nov. 2003 Press: Has Online Learning failed?

- Hardly!

- The Red Sox, the Cubs, and 29 other teams didn't win the world series again this year either.
 - (ed. remember this was 2003!)

- Just like baseball, distance learning has it's winners and losers!

Content and the Value Chain

- Given what MIT has done (OCW), how can UMassOnline compete? – Boston Globe reporter

What MIT provides

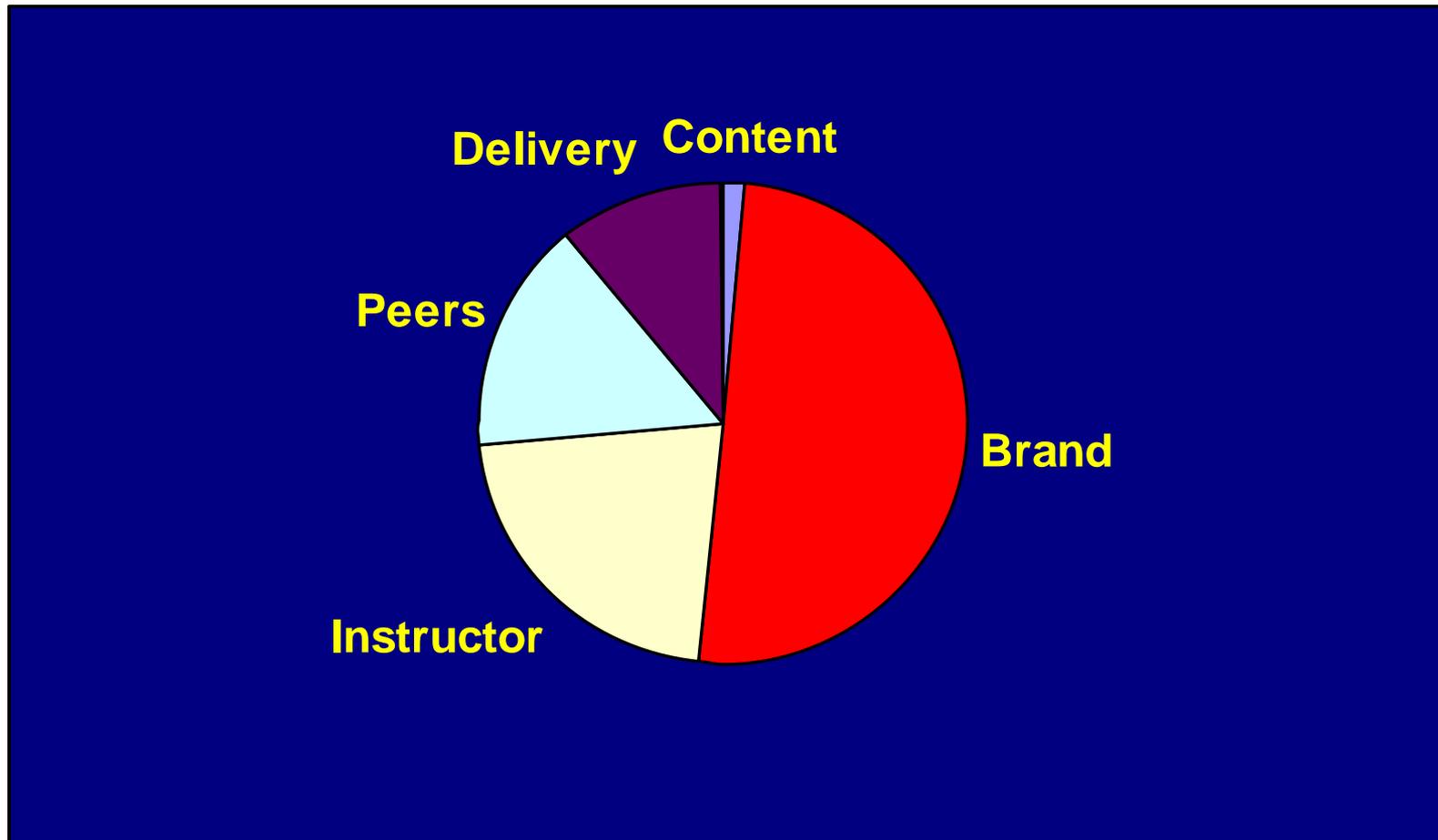
- Course materials

No access

- Reputation
- Courses
- Faculty
- Credentials
- Students
- Alums
- Library
- Facilities

The Value Chain

Brand ~ Reputation (not just prestige)

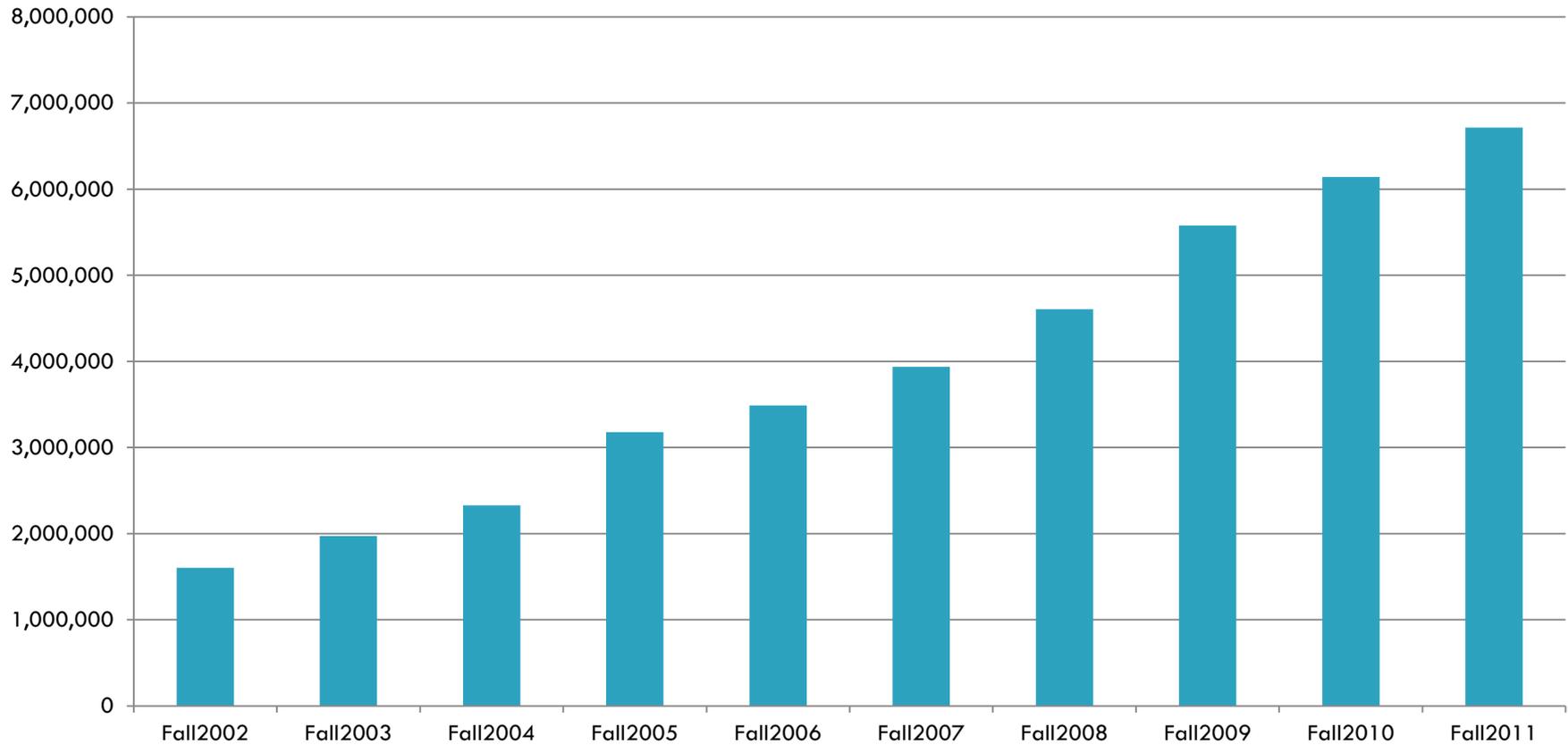


The Reality of Online Education transcends

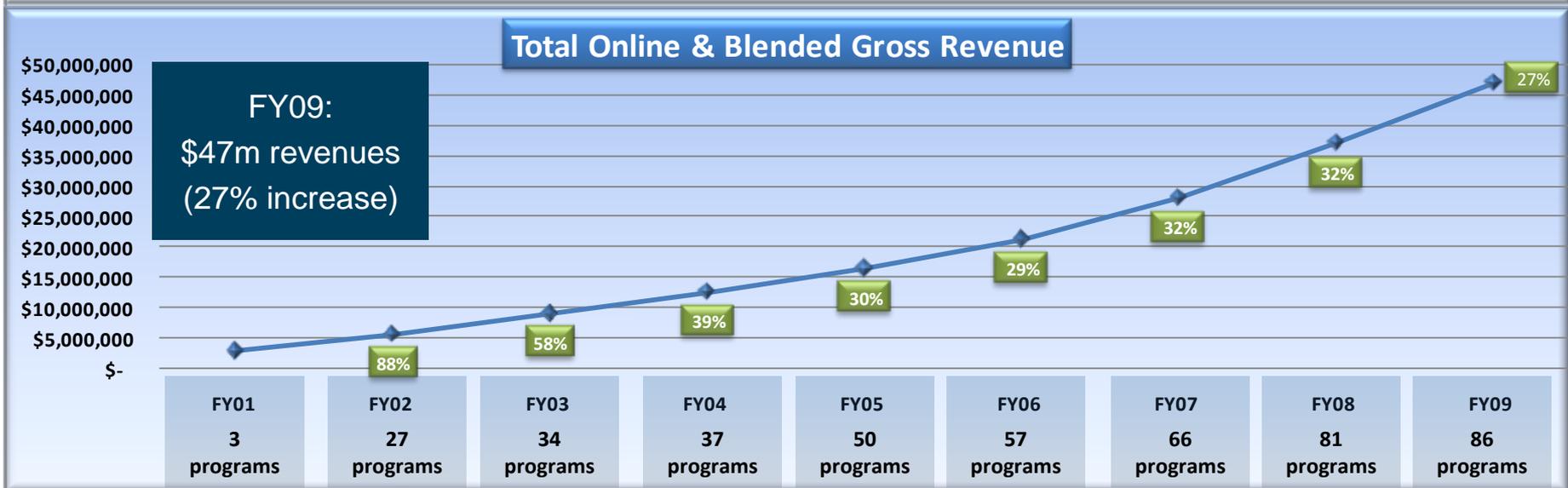
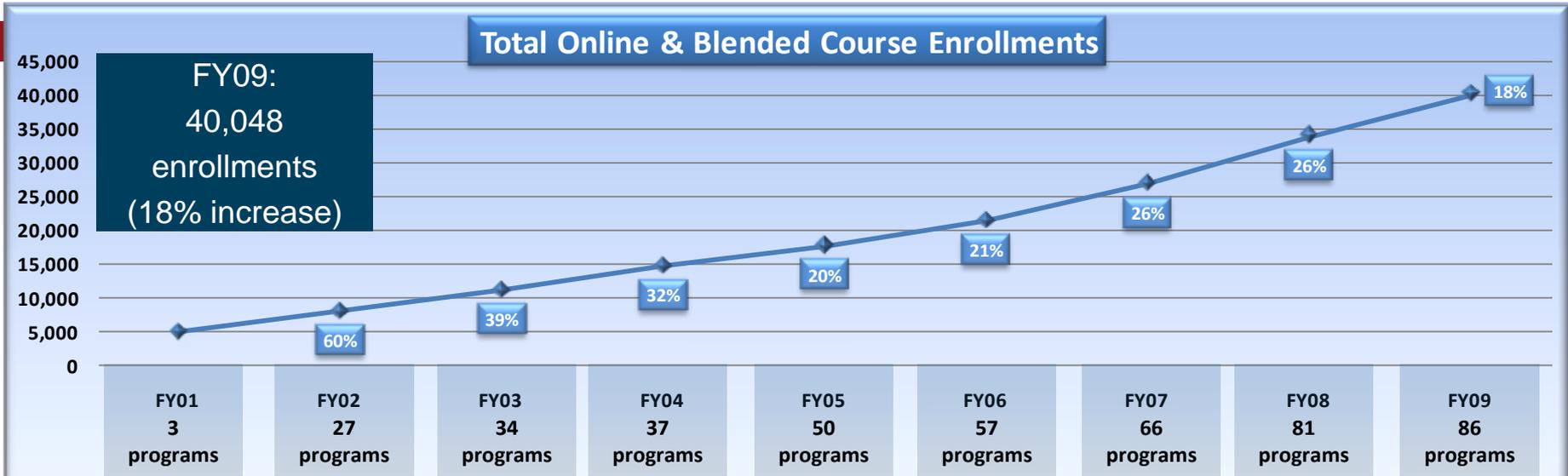
- If one reads the traditional press coverage of online education it is dominated by either
 - ▣ Skepticism
 - Can students learn?
 - Cheating
 - etc
 - ▣ Hype
 - MOOCs will change the world and make higher education obsolete
 - The hyper prestigious universities drive the change
- **Not!**
- So what is the reality and the future?

Relentless Growth

Sloan Alt C- Growth in Online



UMassOnline Growth Trajectory



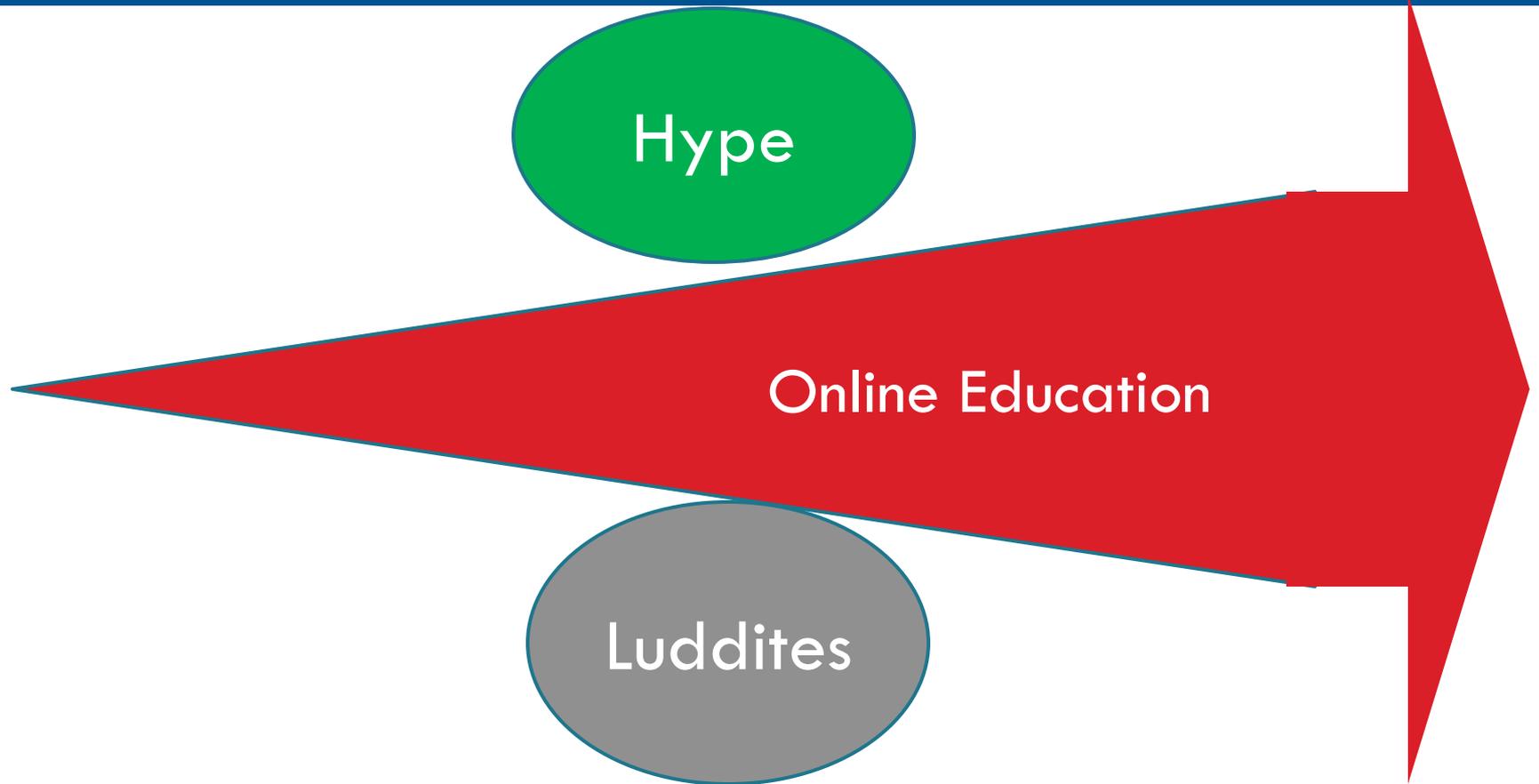
UMassOnline Continued Growth

- FY 2010 UMassOnline
 - ▣ Enrollment 14.4% Increase to 45,815
 - ▣ Revenue 20.1% to \$56.2 Million

- FY2011: UMassOnline
 - ▣ Enrollment 12% Increase to 51,097
 - ▣ Revenue 16% Increase to \$65.2 million

- FY2012: UMassOnline – growth slows
 - ▣ Enrollment: 6.58% increase to 54,461.
 - ▣ Revenue: 10.55% increase to **\$72.1 million.**

A Relentless Force that Will **Not** Be Denied



Creating the Future

- Creating strong Universities to lead us out of the great recession.
- Leading the world in the proportion of college graduates.
- Distance learning is nothing less than a juggernaut.
- Most Universities are struggling with their financial model
- Many (but not all!) traditional universities are struggling to understand the strategy.
- For-Profit Universities are stepping in to fill the vacuum, but are increasingly under attack for their poor performance on retention, persistence, and graduation rates and for their poor use of federal financial resources.

Online Education: A Strategic Tool

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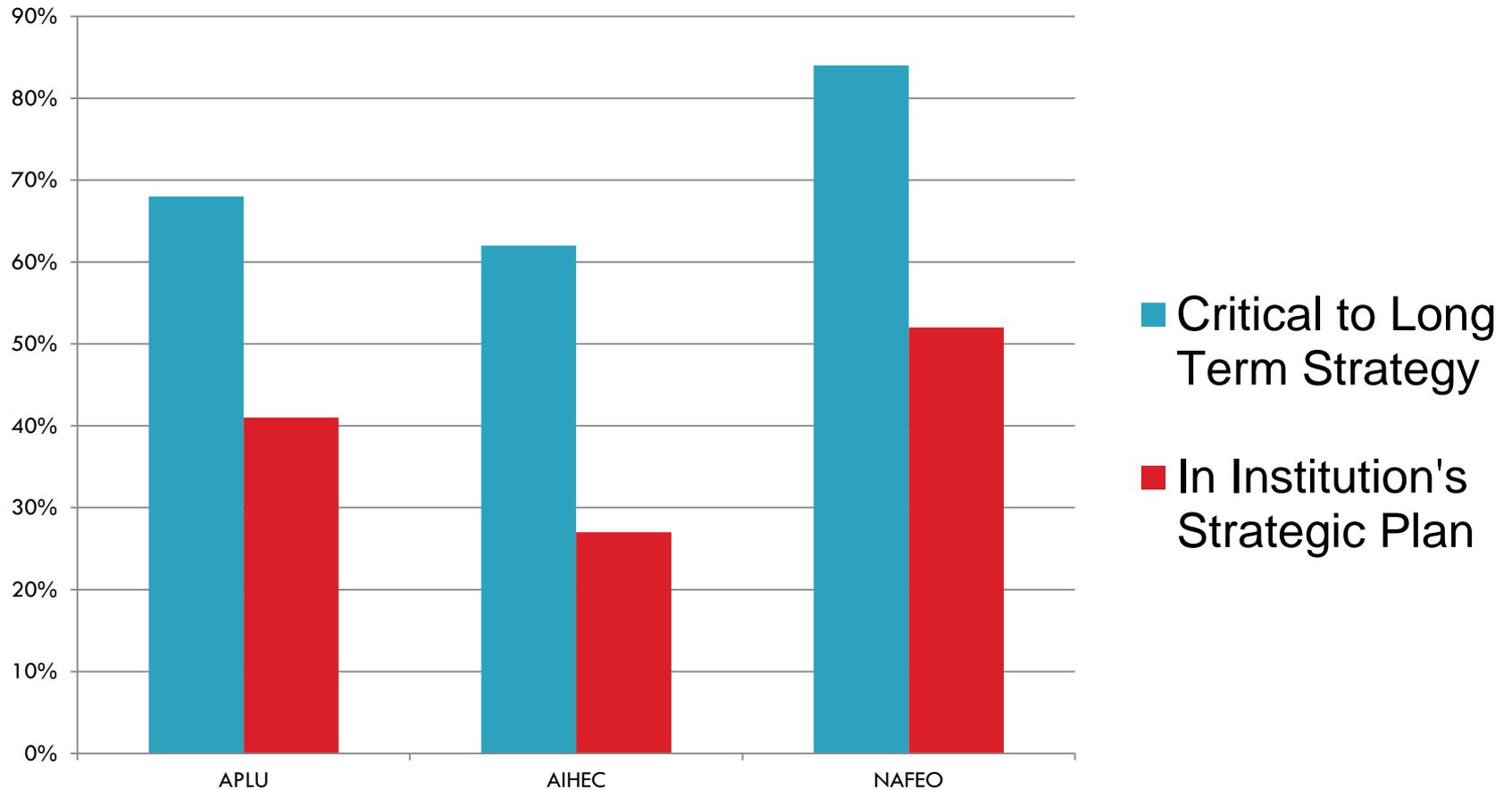
- While most faculty use online technology to support their teaching, too few institutions systemically and institutionally support a portfolio of programs that can be completed at online and at a distance
- However, for many institutions, distance and online learning is becoming an indispensable part of their strategic plans
 - A tool that can reach diverse communities of learners in an efficient, sustainable way
 - Providing additional financial resources to institutions.

Online Learning as a Strategic Asset

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- ❑ Task Force on Online Learning –I chaired
- ❑ APLU-Sloan Benchmarking Study: Online Learning as a Strategic Asset
- ❑ First survey of Presidents and Chancellors regarding their attitudes and experiences regarding online learning. A significant study:
 - ❑ Surveyed more than 850 people, including more than 300 Presidents/Chancellors.
 - ❑ Institutions in this study represent more than 1 million students and more than 100k online enrollments.
- ❑ The Overarching Question: Are Universities equipped to respond to this challenge?

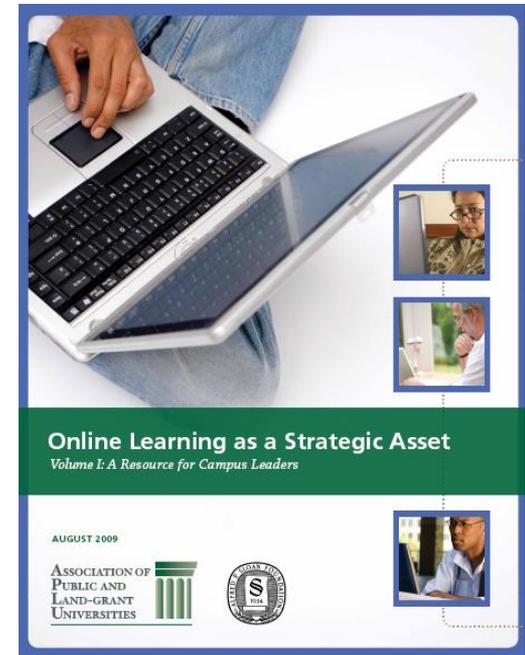
There IS a disconnect!



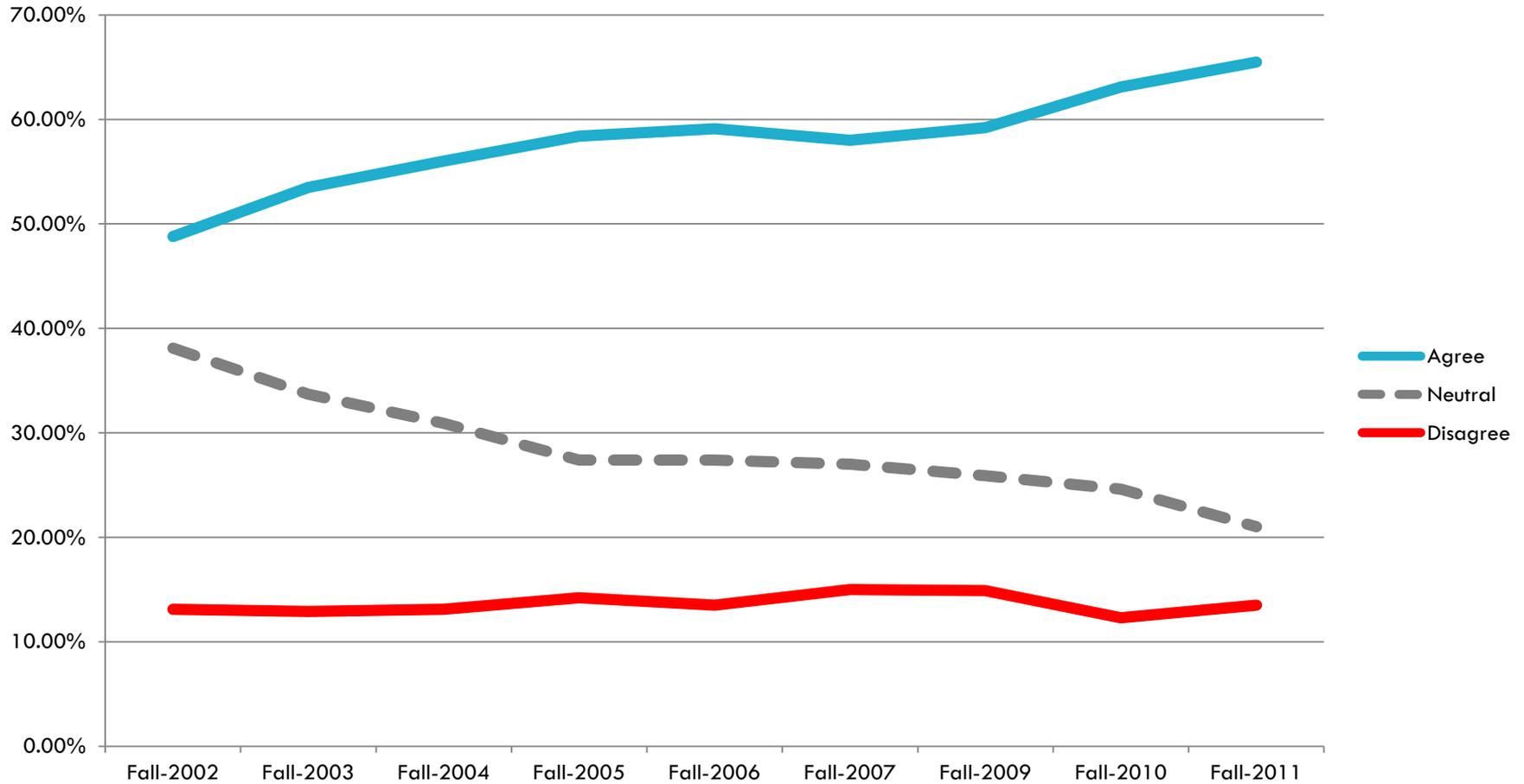
Online Learning as a Strategic Asset

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- Survey revealed that President's know that distance learning needs to part of the strategic plan,
- However, many of them **were not well equipped by past experience** to understand how these programs, once considered peripheral, could become an **integral tool of their institutions strategic plans.**



ONLINE EDUCATION IS CRITICAL TO THE LONG-TERM STRATEGY OF MY INSTITUTION -- FALL 2002 TO FALL 2011 - Babson Survey



Benchmarking Study Results

The Opportunities

- Stereotypes are not correct
 - ▣ Every sub-group teaches (full, part time, tenured, non-tenured, early and late career)
 - ▣ Faculty are motivated by student needs
 - ▣ Faculty recommend online
- Faculty with online experience are more positive

Summary

- Universities have changed rather radically in many ways.
 - ▣ Meteoric rise of online learning
 - ▣ Involvement in economic development
 - ▣ Deployment of 2 of the 3 C's
 - ▣ Disinvestment by government
- Fault lines are developing demarcating the disparity between the changes and our deployment and understanding.
- Hype often detracts and distracts from serious innovation
- The future will continue to be quite a challenge for leaders of higher education.

Thank You!

- Jack M. Wilson
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